REMARKS/ARGUMENTS

STATUS OF CLAIMS

In response to the Office Action dated April 17, 2008, claims 1 and 2 have been amended. Claims 1-11 and 14-21 are now active in this application. No new matter has been added.

Claims 1 and 2 have been amended to correct minor clerical errors in the Roman Numeral numbering of information included in the control information. Such amendments do not alter the scope of claims 1 and 2 as amended in the Response dated January 2, 2008.

REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

I.   Claims 1-9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Osaka et al. (U.S. Patent 6,023,277).

The rejections are respectfully traversed.

Claims 1 and 2 recite, *inter alia*:

wherein said control information includes the number of viewpoints for said three-dimensional image and at least i) camera arrangement information for image pick-up, ii) a direction of thinning during generation of said three-dimensional image from said two-dimensional image, iii) parallax amount shift limit information, iv) parallax image switching pitch information, v) image arrangement of said two-dimensional images corresponding to parallax images, and vi) reversal information on each of said parallax images; ...

That is, claims 1 and 2 require that the control information includes:

i) camera arrangement information for image pick-up,
ii) a direction of thinning during generation of said three-dimensional image from said two-dimensional image,
iii) parallax amount shift limit information,
iv) parallax image switching pitch information,

v) image arrangement of said two-dimensional images corresponding to parallax images, and

vi) reversal information on each of said parallax images.

Column 16, lines 11-28 of Osaka et al. describes:

... A three-dimensional image file 50 according to this embodiment includes a file header 51 representing the attributes of the above-mentioned image file, three-dimensional image data 52 composed of combined stripes, and two-dimensional image data 53 representing the distinctive two-dimensional state in a parallax image used in stripe synthesis. In general, file name, file creation date, file capacity, image format and image compression means are described in the file header. The application analyzes the header, reads in the image data and causes the computer to paint the image. By contrast, in the case of this embodiment, the information in the header is supplemented by data peculiar to a three-dimensional image, such as whether of not a three-dimensional image is to be displayed, the number of viewpoint images of the three-dimensional image, the amount of parallax of the three-dimensional image and whether or not a two-dimensional image is present.

Thus, Osaka discloses that the header includes:

i) file name,
ii) file creation date,
iii) file capacity,
iv) image format
v) image compression means
vi) data peculiar to a three-dimensional image, such as whether of not a three-dimensional image is to be displayed,
vii) the number of viewpoint images of the three-dimensional image,
viii) the amount of parallax of the three-dimensional image, and
ix) whether or not a two-dimensional image is present.

Osaka et al. neither discloses nor suggests that the control information includes the

camera arrangement information for image pick-up, a direction of thinning during generation of

said three-dimensional image from the two-dimensional image, parallax image switching pitch

information, image arrangement of said two-dimensional images corresponding to parallax

images, and reversal information on each of the parallax images.

In the present Office Action, the Examiner notes that, "though Osaka et al. does not

specifically recite a camera, it would have been commonly known in the art at the time the

invention [was made] that a camera is an image capture device, in which the parallax images

captured by Osaka would therefore be picked up by a commonly known camera from particular

directions to provide parallax images, as known in the art". However, even if it is presumed,

arguendo, that this is the case, there is no disclosure or suggestion in Osaka et al. that control

information that is included in the multimedia information (file) would include camera

arrangement information for image pick-up. Therefore, claims 1-9 are patentable over Osaka et

al.

II.   Claims 10 and 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over

Osaka et al. in view of Akamatsu et al. (U.S. Patent 6,313,866), in further view of Applicant's

Admitted Prior Art (AAPA) and in further view of Ellson et al. (U.S. Patent 5,805,783).

The rejections are respectfully traversed.

Independent claim 10 recites, *inter alia*:

> wherein
> *generating the three-dimensional image from said character information includes thinning a horizontal resolution of the character information 1/n when a number of viewpoints for the three-dimensional image is n,* and then making a line forming a portion of three-dimensional image to have one of a horizontal dimension and vertical dimension that is bolder than that of a line representing a corresponding portion of the character information.

Neither Osaka et al., Akamatsu et al. nor Ellson et al. discloses or suggests generating the

three-dimensional image from the character information includes thinning a horizontal resolution

of the character information 1/n when a number of viewpoints for the three-dimensional image is

n.

In the present Office Action, the Examiner notes that, "AAPA teaches generating the

three-dimensional image from said character information includes thinning a horizontal

resolution of the character information to 1/n when a number of viewpoints from the three-

dimensional image is n", referring to page 16, lines 5-8 of the present specification.

Page 16, lines 6-13 of the present specification describes:

> Referring back to Figs. 4A to 4C, "direction of thinning" in Fig. 4A refers
> to the direction in which data is thinned out.
> For example, when the paired images for left eye and right eye are
> arranged in the form of vertical stripes as shown in Fig. 42B according to
> "parallax barrier scheme (or lenticular scheme)" as described above, the
> horizontal resolution of the image for left eye and the image for right eye each is
> half that of a normal two-dimensional image. In this case, as "direction of
> thinning", information that thinning is done in the horizontal direction is
> described.

That is, what is being described is with respect to Fig. 42B, which is a "parallax barrier

scheme" that is representative of a two-viewpoint system. For such "parallax barrier scheme",

the horizontal resolution of the image for left eye and the image for right eye each is half that of

a normal two-dimensional image. However, this does not evince that AAPA recognizes that

generating a three-dimensional image from character information includes thinning a horizontal

resolution of the character information by the variable 1/n where n is a number of viewpoints for

the three-dimensional image, as required by independent claim 10. More specifically, if n were

3, there is nothing in AAPA that discloses that generating a three-dimensional image from

character information includes thinning a horizontal resolution of the character information by

1/3 (i.e., using the variable 1/n). Neither Osaka et al., Akamatsu et al. nor Ellson et al. remedy

this deficiency of the AAPA. Therefore, claims 10 and 11 are patentable over Osaka et al.,

Akamatsu et al., AAPA and Ellson et al.

III. Claims 14-21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over

Osaka et al. in view of Iizuka et al. (U.S. Patent 6,657,655), in further view of Akamatsu, in

further view of AAPA and in further view of Ellson et al.

The rejections are respectfully traversed.

Independent claim 14 recites, *inter alia*:

> ...
>
> said 2D/3D conversion unit converts two-dimensional image data obtained through synthesis by said second synthesis unit into three-dimensional image data, converting two-dimensional data into three-dimensional image data by the 2D/3D conversion unit including thinning a horizontal resolution of the two-dimensional data to 1/n when a number of viewpoints for the three-dimensional image is n, ...

Neither Osaka et al., Iizuka et al., Akamatsu nor Ellson et al. discloses or suggests that

converting two-dimensional data into three-dimensional image data by the 2D/3D conversion

unit including thinning a horizontal resolution of the two-dimensional data to 1/n when a number

of viewpoints for the three-dimensional image is n. In addition, similar to the argument noted

above with respect to independent claim 10, AAPA does not recognize that converting two-

dimensional data into three-dimensional image data by the 2D/3D conversion unit includes

thinning a horizontal resolution of the two-dimensional data to 1/n wherein n is a number of

viewpoints for the three-dimensional image, as required by independent claim 14. Therefore,

claims 14-21 are patentable over Osaka et al., Iizuka et al., Akamatsu, AAPA and Ellson et al.

IV.   In view of the above, the allowance of claims 1-11 and 14-21 is respectfully solicited.

CONCLUSION

Should there be any outstanding matters that need to be resolved in the present

application, the Examiner is respectfully requested to contact Edward J. Wise (Reg. No. 34,523)

at the telephone number of the undersigned below, to conduct an interview in an effort to

expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies

to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional

fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated: June 17, 2008

Respectfully submitted,

By_____
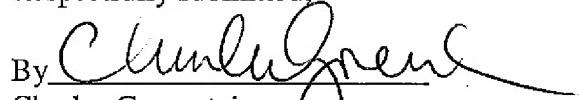
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